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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,669	07/17/2000	Eric P. Traut	068167.0103	8184

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EXAMINER

CHUONG, TRUC T

ART UNIT

PAPER NUMBER

2174

DATE MAILED: 01/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/617,669

Applicant(s)

TRAUT ET AL.

Examiner

Truc T Chuong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 7, 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1, 2, 4-6, 8, 9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Ubillos (U.S. Patent No. 5,999,173).

As to claim 1, Ubillos teaches a computer system for running one or more software applications, wherein the software applications are suitable for generating a video output (col. 4 lines 43-65), comprising:

a host operating system suitable for displaying a graphical user interface;

multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system; and

wherein the host operating system is able to display for a user a reduced-size representation of the video output of the emulated operating systems that are being operated in a background mode (thumbnail, col. 5 lines 35-47).

As to claim 2, Ubillos teaches the computer system of claim 1, further comprising one or more virtual video memory components suitable for storing the video output of the emulated operating systems (computer memory, col. 2 lines 37-45 and col. 7 lines 37-43).

As to claim 4, Ubillos teaches the emulated operating systems operating in a background mode are active; and

wherein the thumbnail images for the emulated operating systems are generated from the video information stored on the video memory components at predetermined intervals while the software applications are active (time scale, col. 6 lines 12-17).

As to claim 5, Ubillos teaches the predetermined intervals are such that the thumbnail images are real-time representations of the video output from active software applications (duration, col. 5 lines 47-48 and figs. 4-6).

As to claim 6, Ubillos teaches the graphical user interface is a windowing environment suitable for displaying one or more windows (col. 3 lines 37-45, col. 4 lines 47-59); and

wherein the portion of the graphical user interface comprising the reduced-size representation is a window (see thumbnail in claim 1).

As to claim 8, a computer system for running one or more software applications, wherein the software applications are suitable for generating a video output, comprising:

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a host operating system suitable for displaying a graphical user interface;
multiple emulated virtual machines being emulated by one or more
emulator programs running on the host operating system; and

wherein the host operating system is able to display for a user a reduced-size representation of the video output of each virtual machine being operated in a background mode.

Ubillos inherently teaches multiple emulated operation systems are virtual machines because Ubillos has mentioned that other equivalent software can be used for integrating video (col. 4 lines 42-46) which virtual machines could be used; moreover, in any Operating System such as Windows 95, 98, and NT, OS/2, Mac OS 8.5-10, virtual machines are included in these software packages, or they can be downloaded from any Web Server so that Internet Browsers will be able to run the Java Scripts from a web site or other Java Applications.

As to claim 9, Ubillos teaches the reduced-size representations are representations of the video outputs of the virtual machines that are being operated in the background mode. This is a combination of claims 6 and 8. Note the rejections of claims 6 and 8 above.

As to claim 12, a method for displaying a reduced-size image of multiple emulated computer systems, comprising the steps of:

reading in at the emulator program from memory in the host
computer system the image of the emulated computer system;

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interpreting in the emulator program the contents of the image of the emulated computer system;

displaying a reduced-size representation of the emulated computer system;

periodically updating the reduced-size representation of the emulated computer system.

Ubillos clearly shows the similar steps as the above elements in thumbnail, retrieving, saving, and viewing data (or images) in his invention (Microprocessor 31, col. 5 lines 16-67 and col. 6 lines 1-67) when all processes are running, and Ubillos's system periodically updating the reduced-size representation (col. 3 lines 32-35 and col. 14 lines 36-50).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ubillos (U.S. Patent No. 5,999,173) in view of Jean-Daniel Nicoud (Video RAMs: Structure and Applications, 1988).

As to claim 3, Ubillos does not clearly teach the video memory components are VRAM memory in his invention but Nicoud describes the

structure and applications of Video RAMs (VRAM) in details (pages 8-14). It would have been obvious that having this highly desirable structure of Nicoud's VRAM into Ubillos's computer memory to provide fast, block-transfer access to the internal memory (page 8 col. 2 lines 15-19).

As to claim 10, Ubillos inherently teaches a virtual video memory associated with each of the virtual machines; and

wherein the reduced-size representations are generated from the video information stored in the virtual video memory associated with each virtual machine because of the Operating System used in Ubillos's invention can have more than one virtual machine or other software (see claim 8 above).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ubillos (U.S. Patent No. 5,999,173) in view of Brett (U.S. Patent No. 5,850,471).

As to claim 7, Ubillos does not teach the reduced-size representations are created using a bilinear sampling technique; however, Brett clearly describes the bilinear sampling technique in his High-definition Digital Video Processing System (col. 10 lines 58-74 and col. 11 lines 1-11). It would have been obvious, at the time of the invention, a person with ordinary skill in the art would add this data reduction feature into Ubillos's reduced-size representations to improve performance in data loading process (col. 11 lines 1-6).

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ubillos (U.S. Patent No. 5,999,173) in view of Mowers et al. (U.S. Patent No. 5,101,354).

As to claim 11, a method for displaying a reduced-size image of multiple emulated computer systems, comprising the steps of:

suspending one or more of the multiple emulated computer systems by saving to memory in the host computer system the image of the emulated computer system;

reading in at the emulator program from memory in the host computer system the image of the suspended emulated computer system;

interpreting in the emulator program the contents of the saved image of the suspended emulated computer system;

displaying a reduced-size representation of the suspended emulated computer system.

Ubillos clearly shows the similar steps as the above elements in thumbnail, retrieving, saving, and viewing data (or images) in his invention (cols. 5-6). Note the rejection of claim 12 above. However, Ubillos does not teach the suspended emulated computer system. Mowers clearly describes that most processes are designed to place themselves into a suspended state (col. 65 lines 22-36). It would have been obvious at the time of the invention, a person with ordinary skill in the art would add this suspended feature into Ubillos's system to improve the performance of a CPU during multiple processes running (col. 65 lines 22-36).

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Migos et al. (U.S. Patent No. 6,031,529) teach video display monitor and thumbnail (cols. 1-11 and figs. 1-16).

Torrance et al. (The Design of a Fully Integrated Graphics System, IEEE, 1988) teach VRAM and video controller (pages 368-376).

Wang et al. (U.S. Patent No. 6,028,603) teach video software, windows, and thumbnail.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T Chuong whose telephone number is 703-305-5753. The examiner can normally be reached on M-F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L. Kincaid can be reached on 703-308-0640. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Truc T. Chuong
December 30, 2002

Kristine Kincaid
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